

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Animal Abstract

Element Code: ABNSB08041

Data Sensitivity: Yes

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Glaucidium brasilianum cactorum* van Rossem

COMMON NAME: Cactus Ferruginous Pygmy-Owl

SYNONYMS: *Strix brasiliiana* Gmelin

FAMILY: Strigidae

AUTHOR, PLACE OF PUBLICATION: Van Rossem. 1937. Proc. Biol. Soc. Washington, 50, Feb. 23, 1937. p.27.

TYPE LOCALITY: Between Guaymas and Empalme, Sonora.

TYPE SPECIMEN: 30225 California Institute of Technology (original number 12940).

TAXONOMIC UNIQUENESS: The subspecies *cactorum* is 1 of 3 subspecies of *Glaucidium brasilianum*, and is the only subspecies that occurs in Arizona. *G.b. ridgwayi* occurs throughout southern Mexico and central America and *G.b. brasilianum* is found throughout South America.

DESCRIPTION: Small size owl weighing 2.3-3.1 ounces and measuring 5.8-7.2 in (14.73-18.3 cm) in length and 14.3-16.0 in (36.32-40.64 cm) in wingspan (Monson *in* Glinski 1998). Females average slightly larger than males. "The back and upper coverts are plain light brown, with occasional conspicuous white spots on the upper wing coverts and small, regularly spaced whitish spots on the outer primaries. Both the tail and the flight feathers are duskiy barred, the dusky and light bars of the tail evenly spaced. The head and nape are a somewhat paler brown than the back and have linear whitish streaks; each side of the nape is decorated with a black blot bordered in white that resembles an eye. The face has a white V and disk. The breast and flanks are heavily streaked with dark reddish brown to blackish marks; sometimes the streaks merge and become almost solid reddish brown. The tarsi are feathered. The eyes are yellow. The bill is greenish yellow." (Monson *in* Glinski 1998). Both sexes and immature birds have similar plumage.

AIDS TO IDENTIFICATION: Similar to Northern Pygmy-Owl (*Glaucidium gnoma*). Rufous crown streaked with white. Tail has 7-8 light brown (not white) bars. Call consists of a "put-put-put" note with the "sharp penetrating quality of the whistling note of the cardinal; the rate, however, being about 150 'puts' per minute." Early in season, male may call "nearly all night and much of the day" (Brandt 1951).

ILLUSTRATIONS: Color drawing of species (Monson *in* Glinski 1998: plate 36)

TOTAL RANGE: Southern Arizona and southern Texas south to Guerrero, Nuevo Leon, and Tamaulipas, Mexico.

RANGE WITHIN ARIZONA: Formerly fairly common in mesquite bosques throughout central southern Arizona. Have been found south of Tortolita Mts., west of Tortilla Mts., Rincon Mts., Pajarito Mts., Puerto Blanco Mts., Ajo Mts., Santa Catalina Mts., Santa Rita Mts., Tucson area, Gila River near Bonita Creek and San Francisco River, San Pedro River near Dudleyville, and Sonoyta Creek. The only recent records are from Organ Pipe Cactus National Monument, near Ajo, and suburban Tucson.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: A nonsocial owl that is active mostly at dawn and dusk. This diurnal habit helps separate it from other small owls that dislike light. Vocalizations indicate breeding activity, usually September to April (Monson *in* Glinski 1998; September to March in Millsap and Johnson *in press*). It is normally silent in the summer. The principal vocalization is a rapid, monotonous repeated, and shrill hooting (Monson *in* Glinski 1998). The hoots are uttered at the rate of about 2 per second, or 120-150 per minute, and may be repeated as many as 100 times without pause (Monson *in* Glinski 1998). The flight is quick and direct, generally flying short distances from one tree or bush to another. When perching, it is usually found sitting in a leafy paloverde mesquite, or perhaps a cottonwood or willow. The best field identification is its small size and long reddish-barred tail, which is often nervously wagged or twitched. It is unknown whether they remain on their home territory throughout the year.

REPRODUCTION: Nothing is known about the courtship behavior (Monson *in* Glinski 1998). They nest in woodpecker or natural cavities in broadleaf riparian trees or saguaro cacti. Nests usually 10-20 feet up but may be as high as 40 feet and close to the river. No lining material used. Laying commences by 20 April. Three to 4 white, unmarked eggs (1.1 inches long) are laid in the bottom of the cavity. Possibly monogamous mating. Twenty eight day incubation period, mostly by the female. Young are immobile, downy, and have eyes closed after hatching. The young are fed by both parents, and the male will also feed the female. Hatching is synchronous but siblings compete for food resulting in size differences. Young fledge in 27-30 days.

FOOD HABITS: A daytime predator who's diet is not well known. It forages in microphyllous woodland, especially well developed mesquite bosque, but also desert washes with mature blue palo verde, mesquite, and ironwood. Small birds, insects (e.g. crickets, scorpions, caterpillars), lizards, and mammals are thought to be their main diet. Prey are snatched from the ground in talons, after a gliding descent from a perch.

HABITAT: In Arizona according to Monson (*in* Glinski 1998), "it has occurred in streamside cottonwoods and willows and adjacent mesquite bosques, usually with saguaros on nearby slopes. Less often it has been found along dry washes where large mesquite, paloverde, ironwood, and saguaro thrive."

ELEVATION: 1,300 - 4,000 ft (397 - 1,220 m).

PLANT COMMUNITY: Sonoran riparian deciduous woodland within Arizona upland subdivision and Sonoran desertscrub.

POPULATION TRENDS: Drastic declines in both range and abundance. Sporadic breeding has been documented in recent years in suburban Tucson. Before 1950, they were a fairly common to common resident in low elevation riparian mesquite woodlands ranging north to Phoenix, northwest to Salt-Gila River confluence, west to Cabeza Prieta Tanks, and east to at least Superior (probably to upper Gila River near Safford). They are declining in northern Sonora where they now are absent from many locations described by van Rossem.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: SC (USDI, FWS 2006)
[LE (USDI, FWS 1997); Critical Habitat
Proposed 11/27/2002, AZ Pop.]
[PE USDI, FWS 1996]
[C1 USDI, FWS 1991]

STATE STATUS: WSC (AGFD, WSCA in prep)
[State Endangered (species level) AGFD,
TNW 1988]

OTHER STATUS: Forest Service Sensitive (USDA, FS Region
3 1999)
Texas Parks and Wildlife Department –
Threatened.
A (Diario Oficial de la Federacion 1994),
Listed as to species, not subspecies.

MANAGEMENT FACTORS: **Likely threats:** degradation and loss of habitat and urban development in saguaro-ironwood forests (near Tucson). **Management needs:** refine breeding survey protocols and conduct surveys; determine habitat needs; manage grazing and other land uses to maintain and enhance important occupied or potentially-occupied habitats. (AGFD in prep).

PROTECTIVE MEASURES TAKEN: Listed Endangered in 1997 (USDI, FWS 1997).

SUGGESTED PROJECTS: Continued statewide status surveys. Refinement of detection protocol, determination of habitat requirements.

LAND MANAGEMENT/OWNERSHIP: BLM - Tucson Field Office; FWS - Buenos Aires and Cabeza Prieta National Wildlife Refuges; NPS - Organ Pipe Cactus National Monument

and Saguaro National Park; USFS - Coronado and Tonto National Forests; BIA - Tohono O'odham; State Land Department; Private.

SOURCES OF FURTHER INFORMATION

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

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ADDITIONAL INFORMATION: “The name *Glaucidium* is derived from the Greek *glaux*, which implies that this bird is an owl because it has glaring eyes (Choate 1985); *brasilianum* refers to Brazil, where this small diurnal owl was discovered. The subspecific epithet for the race occurring in Arizona, *cactorum*, alludes to cactus, a vegetation with which it frequently associates in the northern portion of its range. The term *ferruginous* refers to the rusty red tail and upper side of the outer vanes of the flight feathers.” (Monson *in* Glinski 1998).

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